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Claims

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1. (Cancelled)

2. (Amended) A mobile communication system that includes a mobile station and a mobile communication network to which this mobile station can connect by radio-waves, and that includes a compressed mode, which is a mode of intermittent communication having gaps in which communication is not carried out in mobile communication between said mobile station and said mobile communication network; said mobile communication network comprising:

transmission means for, at a time of inter-frequency HO (Hand Over), using said gaps to transmit to said mobile station by an HO destination frequency, data that are identical to data that are transmitted from said mobile communication network to said mobile station by an HO origin frequency,

and wherein

said mobile station comprising combining means for receiving and combining mutually identical data that are transmitted from said transmission means by the HO origin frequency and the HO destination frequency.

3. (Cancelled)

4. (Cancelled)

5. (Amended) A mobile communication system according to claim

2,

said mobile station comprising transmission means for, at the time of

said inter-frequency HO, using said gaps to transmit, to said mobile communication network by the HO destination frequency, data that are identical to data transmitted from said mobile station to said mobile communication network by the HO origin frequency, and wherein

each of a plurality of base transceiver stations that make up said mobile communication network includes combining means for, when an HO origin base transceiver station and an HO destination base transceiver station at the time of said inter-frequency HO are the same base transceiver station and this base transceiver station is its own base transceiver station, receiving and combining mutually identical data that are transmitted by the HO origin frequency and the HO destination frequency by said transmission means of said mobile station.

6. A mobile communication system according to claim 5, wherein each of said plurality of base transceiver stations includes measurement means for measuring reception quality based on output data of its own said combining means, and based on this reception quality, implements variable control over a target reception quality that is used to control a transmission power of uplink between said mobile communication network and said mobile station.

7. (Amended) A mobile communication system according to claim 5, wherein a Radio Network Controller that is connected to a plurality of base transceiver stations that make up said mobile communication network includes selective combining means for, when the HO origin base transceiver station and the HO destination base transceiver station at the time of said inter-frequency HO are different base transceiver stations, receiving by way of said

HO origin base transceiver station and said HO destination base transceiver station mutually identical data that are transmitted by the HO origin frequency and the HO destination frequency by means of said transmission means of said mobile station and selectively combining said received data.

8. (Cancelled)

9. (Cancelled)

10. (Amended) A mobile communication system according to claim 2, said mobile station comprising measurement means for measuring reception quality based on output data of said combining means and, based on this reception quality, implements variable control over a target reception quality that is used to control a transmission power of downlink between said mobile communication network and said mobile station, and wherein

said reception quality is reception SIR (Signal-to-Interference Ratio), and said target reception quality is target SIR.

11. A mobile communication system according to claim 6, wherein said reception quality is reception SIR (Signal-to-Interference Ratio), and said target reception quality is target SIR.

12. (Cancelled)

13. (Amended) An inter-frequency HO (Hand Over) method of a mobile communication system that includes a mobile station and a mobile

communication network to which this mobile station can connect by radio-waves, and that includes a compressed mode, which is a mode of intermittent communication having gaps in which communication is not carried out in mobile communication between said mobile station and said mobile communication network; said inter-frequency HO method comprising:

a transmission step wherein said mobile communication network, at a time of inter-frequency HO, uses said gaps to transmit to said mobile station by an HO destination frequency, data that are identical to data that are transmitted from said mobile communication network to said mobile station by an HO origin frequency; and
a combining step wherein said mobile station receives and combines mutually identical data that are transmitted by the HO origin frequency and the HO destination frequency in said transmission step.

14. (Cancelled)

15. (Cancelled)

16. (Amended) An inter-frequency HO method according to claim 13; said method comprising:

a transmission step wherein said mobile station, at the time of said inter-frequency HO, uses said gaps to transmit, to said mobile communication network by the HO destination frequency, data that are identical to data that are transmitted from said mobile station to said mobile communication network by the HO origin frequency; and
a combining step whereby each of a plurality of base transceiver stations that make up said mobile communication network, when an HO origin

base transceiver station and an HO destination base transceiver station at the time of said inter-frequency HO are the same base transceiver station and this base transceiver station is its own base transceiver station, receive and combine mutually identical data that are transmitted by the HO origin frequency and the HO destination frequency in said transmission step of said mobile station.

17. An inter-frequency HO method according to claim 16, said method comprising a measurement step wherein each of said plurality of base transceiver stations measures reception quality based on combined data obtained by said combining step of its own station, and wherein, based on this reception quality, variable control is implemented over the target reception quality that is used to control the reception power of uplink between said mobile communication network and said mobile station.

18. (Amended) An inter-frequency HO method according to claim 13; said method comprising:

a transmission step wherein said mobile station, at the time of said inter-frequency HO, uses said gaps to transmit, to said mobile communication network by the HO destination frequency, data that are identical to data that are transmitted from said mobile station to said mobile communication network by the HO origin frequency; and
a selective combining step wherein: when the HO origin base transceiver station and the HO destination base transceiver station at the time of said inter-frequency HO are different base transceiver stations, a Radio Network Controller that is connected to a plurality of base transceiver stations that make up said mobile communication

network receives by way of said HO origin base transceiver station and said HO destination base transceiver station mutually identical data that are transmitted by the HO origin frequency and the HO destination frequency in said transmission step of said mobile station and selectively combines said received data.

19. (Cancelled)

20. (Cancelled)

21. (Amended) An inter-frequency HO method according to claim 13, said method comprising a measurement step wherein said mobile station measures reception quality based on combined data obtained by said combining step; wherein, based on this reception quality, variable control is implemented over a target reception quality that is used to control a transmission power of downlink between said mobile communication network and said mobile station, and wherein

said reception quality is reception SIR (Signal-to-Interference Ratio), and said target reception quality is target SIR.

22. An inter-frequency HO method according to claim 17, wherein said reception quality is reception SIR (Signal-to-Interference Ratio), and said target reception quality is target SIR.

23. (Cancelled)

24. (Amended) A mobile station that includes a compressed mode, which is a mode of intermittent communication having gaps in which communication is not carried out in mobile communication between the mobile station and a mobile communication network; said mobile station comprising:

transmission means for, at a time of an inter-frequency HO (Hand Over), using the gaps to transmit, to the mobile communication network by an HO destination frequency, data that are identical to data that are transmitted by an HO origin frequency from the mobile station to the mobile communication network; and

combining means for receiving and combining mutually identical data that are transmitted by the HO origin frequency and the HO destination frequency from said mobile communication network using said gaps at the time of said inter-frequency HO.

25. (Cancelled)

26. (Amended) A mobile station according to claim 24, said mobile station including measurement means for measuring reception quality based on output data of said combining means, and that, based on this reception quality, implements variable control over a target reception quality that is used to control a transmission power of downlink between said mobile communication network and said mobile station, and wherein

said reception quality is the reception SIR (Signal-to-Interference Ratio); and said target reception quality is the target SIR.

27. (Cancelled)

28. (Cancelled)

29. (Amended) A program for causing a computer to execute operations of a mobile station having a compressed mode, which is a mode of intermittent communication having gaps in which communication is not carried out in mobile communication between a mobile station and a mobile communication network; said program comprising:

 a transmission step for, at a time of a inter-frequency HO (Hand Over), using said gaps to transmit, to said mobile communication network by an HO destination frequency, data that are identical to data that are transmitted from said mobile station to said mobile communication network by an HO origin frequency; and

 a combining step for receiving and combining mutually identical data that are transmitted by the HO origin frequency and the HO destination frequency from said mobile communication network using said gaps at the time of said inter-frequency HO.

30. (Cancelled)

31. (Amended) A program according to claim 29, said program comprising a measurement step for measuring reception quality based on combined data obtained by said combining step, wherein, based on this reception quality, variable control is implemented over a target reception quality that is used to control a transmission power of downlink between said mobile communication network and said mobile station, and wherein